

## Claims

1. In a code division multiple access communication system, a method  
2 comprising:  
determining a rate of change of a carrier to interference ratio (C/I) of a  
4 communication channel received at a receiver; and  
determining a gain level of said communication channel based on said  
6 rate of change of said C/I for transmission of said communication channel to said receiver.
2. The method as recited 1 further comprising:  
2 determining whether said rate of change of said C/I is positive; and  
subtracting a gain margin from said gain level of said communication  
4 channel to produce a final gain level for transmission of said communication channel to said receiver.
3. The method as recited in claim 2 wherein a magnitude of said gain margin  
2 corresponds proportionally to a magnitude of said rate of change of said C/I.
4. The method as recited in claim 2 wherein said subtracting includes  
2 increasing a data rate of said communication channel.

5. The method as recited in claim 2 wherein said subtracting includes  
2 decreasing a power level of said communication channel.

6. The method as recited in claim 2 further comprising transmitting said  
2 communication channel to said receiver at said final gain level.

7. The method as recited in claim 1 further comprising:  
2 determining whether said rate of change of said C/I is negative; and  
adding a gain margin to said gain level of said communication channel to  
4 produce a final gain level for transmission of said communication channel to said  
receiver.

8. The method as recited in claim 7 wherein a magnitude of said gain margin  
2 corresponds proportionally to a magnitude of said rate of change of said C/I.

9. The method as recited in claim 7 wherein said adding includes decreasing  
2 a data rate of said communication channel.

10. The method as recited in claim 7 wherein said adding includes increasing  
2 a power level of said communication channel.

11. The method as recited in claim 7 further comprising transmitting said  
2 communication channel to said receiver at said final gain level.

12. The method as recited in claim 1 further comprising:

determining a mobility level of said communication channel; and

determining whether said determined mobility level meets a low mobility

threshold, wherein said determining said gain level of said communication channel based on said rate of change of C/I depends on whether said

determined mobility level meets said low mobility threshold.

13. In a communication system, an apparatus comprising:

a receiver for receiving a communication channel; and

a controller configured for determining a rate of change of a carrier to

interference ratio (C/I) of said communication channel and determining a gain level of said communication channel based on said rate of change of said C/I for

transmission of said communication channel to said receiver.

14. The apparatus as recited in claim 13 wherein said communication system

is a code division multiple access communication system.

15. The apparatus as recited 13 wherein said controller is configured for

determining whether said rate of change of said C/I is positive and subtracting a gain margin from said gain level of said communication channel to produce a

final gain level for transmission of said communication channel to said receiver.

16. The apparatus as recited in claim 13 wherein a magnitude of said gain  
2 margin corresponds proportionally to a magnitude of said rate of change of said  
C/I.

17. The apparatus as recited in claim 15 wherein said subtracting includes  
2 increasing a data rate of said communication channel.

18. The apparatus as recited in claim 15 wherein said subtracting includes  
2 decreasing a power level of said communication channel.

19. The apparatus as recited in claim 15 further comprising a transmitter for  
2 transmitting said communication channel to said receiver at said final gain level.

20. The apparatus as recited 13 wherein said controller is configured for  
2 determining whether said rate of change of said C/I is negative and adding a gain  
margin to said gain level of said communication channel to produce a final gain  
4 level for transmission of said communication channel to said receiver.

21. The apparatus as recited in claim 20 wherein a magnitude of said gain  
2 margin corresponds proportionally to a magnitude of said rate of change of said  
C/I.

22. The apparatus as recited in claim 20 wherein said adding includes  
2 decreasing a data rate of said communication channel.

23. The apparatus as recited in claim 20 wherein said adding includes  
2 increasing a power level of said communication channel.

24. The apparatus as recited in claim 20 further comprising a transmitter for  
2 transmitting said communication channel to said receiver at said final gain level.

25. The apparatus as recited in claim 13 wherein said controller is configured  
2 for determining a mobility level of said communication channel and determining  
whether said determined mobility level meets a low mobility threshold, wherein  
4 said determining said gain level of said communication channel based on said  
rate of change of C/I depends on whether said determined mobility level meets  
6 said low mobility threshold.

26. In a code division multiple access communication system, an apparatus  
2 comprising:

means for determining a rate of change of a carrier to interference ratio  
4 (C/I) of a communication channel received at a receiver; and

means for determining a gain level of said communication channel based  
6 on said rate of change of said C/I for transmission of said communication  
channel to said receiver.

27. The apparatus as recited 26 further comprising:

means for determining whether said rate of change of said C/I is positive;  
and

means for subtracting a gain margin from said gain level of said  
communication channel to produce a final gain level for transmission of said  
communication channel to said receiver.

28. The apparatus as recited in claim 27 further comprising means for  
transmitting said communication channel to said receiver at said final gain level.

29. The apparatus as recited 26 further comprising:

means for determining whether said rate of change of said C/I is negative;  
and

means for adding a gain margin to said gain level of said communication  
channel to produce a final gain level for transmission of said communication  
channel to said receiver.

30. The apparatus as recited in claim 29 further comprising means for  
transmitting said communication channel to said receiver at said final gain level.

31. The apparatus as recited in claim 26 further comprising:

means for determining a mobility level of said communication channel;  
and

4 means for determining whether said determined mobility level meets a low  
mobility threshold, wherein said means for determining said gain level of said  
6 communication channel based on said rate of change of C/I depends on whether  
said determined mobility level meets said low mobility threshold.

32. In a communication system, an apparatus comprising:

2 means for receiving a communication channel; and  
means for a controller configured for determining a rate of change of a  
4 carrier to interference ratio (C/I) of said communication channel and determining  
a gain level of said communication channel based on said rate of change of said  
6 C/I for transmission of said communication channel to said receiver.

33. The apparatus as recited 32 wherein said means for said controller is  
2 configured for determining whether said rate of change of said C/I is positive, and  
subtracting a gain margin from said gain level of said communication channel to  
4 produce a final gain level for transmission of said communication channel to said  
receiver.

34. The apparatus as recited in claim 33 further comprising means for a  
2 transmitter for transmitting said communication channel to said receiver at said  
final gain level.

35. The apparatus as recited 32 wherein said means for said controller is  
2 configured for determining whether said rate of change of said C/I is negative  
and adding a gain margin to said gain level of said communication channel to  
4 produce a final gain level for transmission of said communication channel to said  
receiver.

36. The apparatus as recited in claim 35 further comprising means for a  
2 transmitter for transmitting said communication channel to said receiver at said  
final gain level.

37. The apparatus as recited in claim 33 wherein said means for said  
2 controller is configured for determining a mobility level of said receiver and  
determining whether said determined mobility level meets a low mobility  
4 threshold, wherein said determining said gain level of said communication  
channel based on said rate of change of C/I depends on whether said  
6 determined mobility level meets said mobility threshold.

38. In a code division multiple access communication system, a method  
2 comprising:

determining a rate of change of a carrier to interference ratio (C/I) of a  
4 communication channel received at a receiver;



adjusting a gain level of said communication channel based on said rate of  
6 change of said C/I for transmission of said communication channel to said  
receiver; and

8 determining whether said rate of change of said C/I is positive or negative;  
wherein said adjusting includes subtracting, if said rate of change of C/I is  
10 positive, a gain margin from said gain level of said communication channel to  
produce a final gain level for transmission of said communication channel to said  
12 receiver;

wherein said adjusting includes, adding, if said rate of change of C/I is  
14 negative, a gain margin to said gain level of said communication channel to  
produce said final gain level for transmission of said communication channel to  
16 said receiver, wherein a magnitude of said gain margin corresponds  
proportionally to said magnitude of said rate of change of said C/I.

39. The method as recited in claim 38 further comprising transmitting said  
2 communication channel to said receiver at said final gain level.